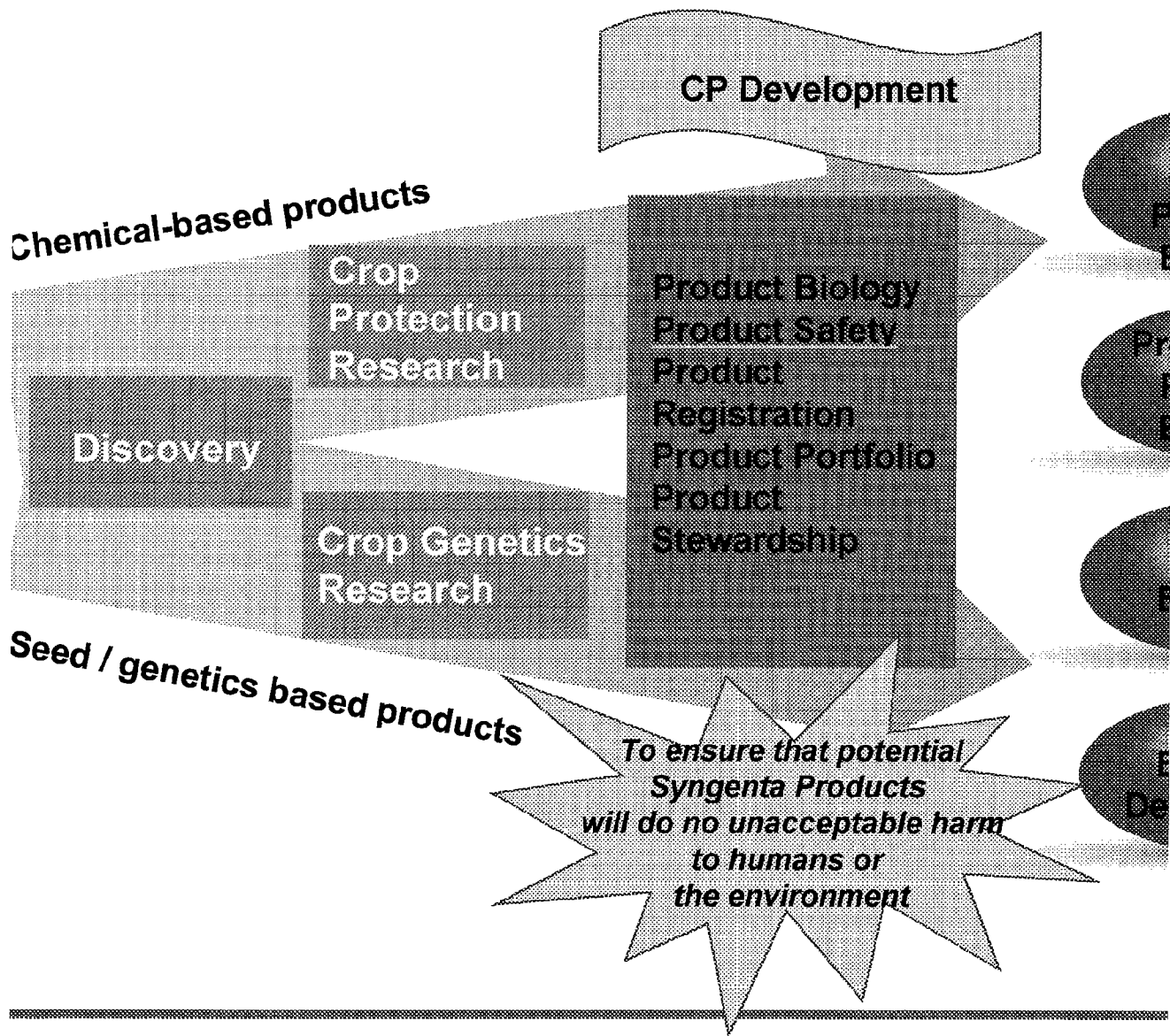




Product Safety in the Business Model



Global Trends

Global Harmonization of Data Requirements

- Export of Regulatory "Intensity"
- Influencing
- Need to translate safety to real environments

Global Trade Food/Feed Safety

- Import tolerances (Residues / Traits)

Increased Activist Pressure

- Scientific Credibility / Communication
- Increasing Litigation

New Concerns

- endocrine effects, endangered species, children's health, mixtures etc.

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Product Safety – Three Key Questions

What happens to our chemicals/traits when they are used?

- We investigate how our products break down in biological systems (plants, animals, soil, aquatic ecosystems,...)

Where do they go?

- We investigate how pesticides or metabolites move from the site of application to non target areas.

Do they cause any harm when they get there?

- We determine adverse effects and quantify risk to ensure that our products are safe for humans and the environment

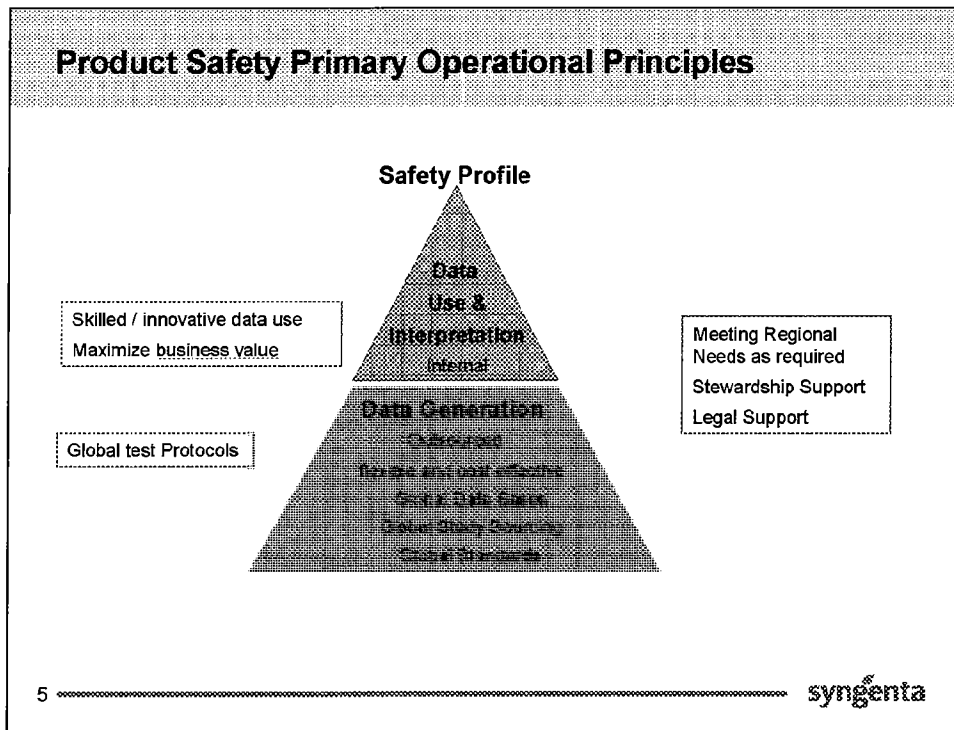
New active ingredients

New formulations, mixtures etc

Re-registration and maintenance activities

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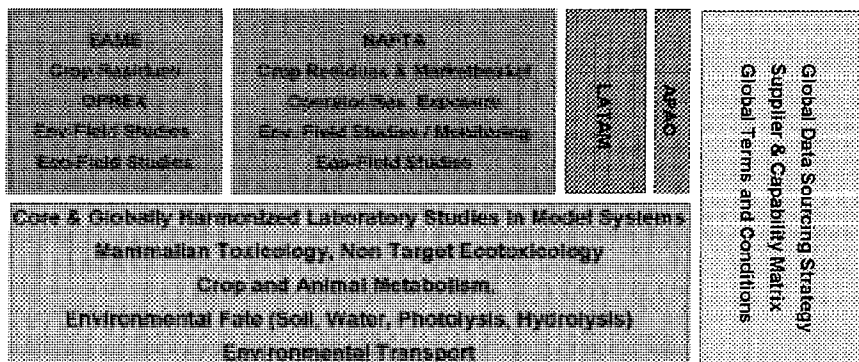


Product Safety Data Sourcing

Sourcing Principles Apply to > 90% of Product Safety Studies
 Budget managed globally with funding decision through regional/global ranking process
 Some locally funded activities done through country budgets (BR, JPN, D, FR)

SATAM
 Crop Residues
 Formulation testing
 Local Env. Studies

Local OPREX



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Product Safety Primary Organisational Principles

- Primary organisational division into regions
GSO Product Safety Primarily Supports NAFTA, LATAM and
Traits Global
- Strong global co-ordination
 - Optimised study programs & Core studies
 - Technical positions
 - Priorization/Budgets/Study Placement
- GSO Product Safety Staff will also provide
 - risk assessments
 - regulatory submissions
 - support for regulatory, stewardship and legal activities

In NAFTA and LATAM

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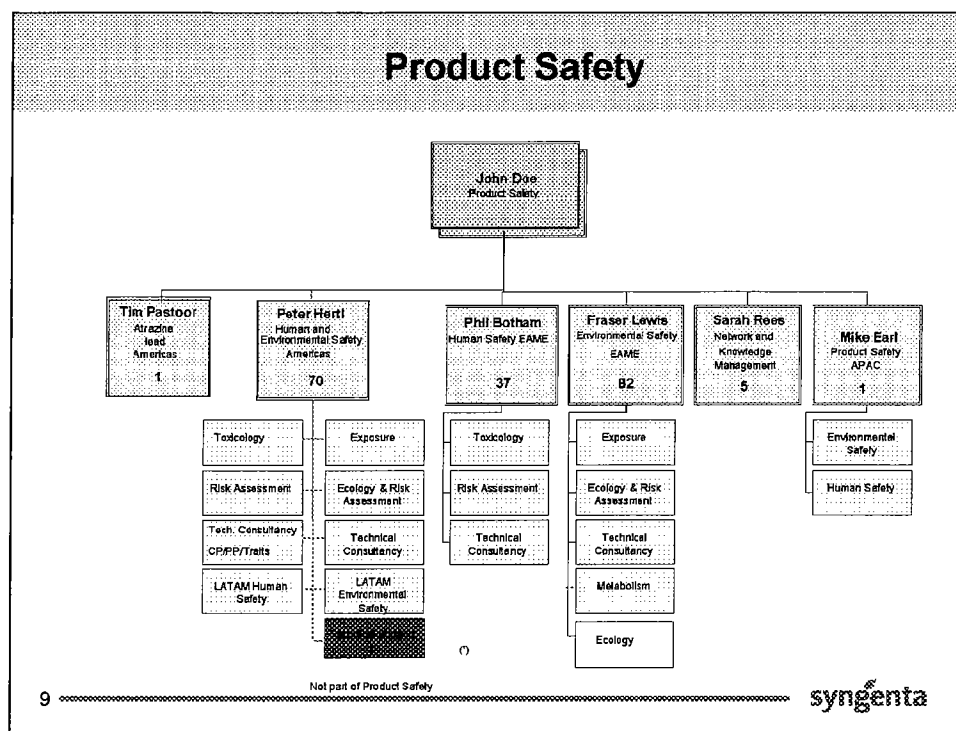
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Product Safety Organisation

New Organisation is focused on:

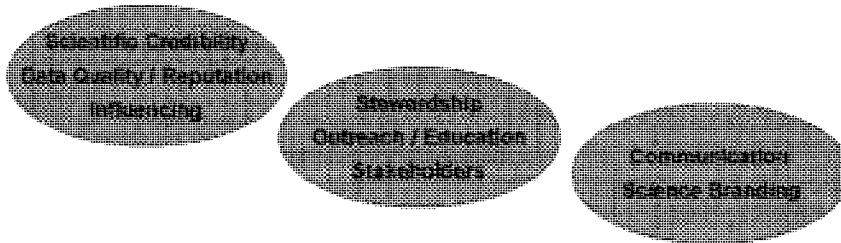
- Sourcing data from external CROs
- Sourcing expertise from universities, institutes etc
- Data interpretation and risk assessment
- Small laboratory based product metabolism group
- Small residue method development
- Small laboratory based MoA (mode of toxicity) group
- Knowledge Management support

- Approximately 200 people
 - EAME (JH, UK) - 130
 - NAFTA/LATAM (GSO, US) - 65 + 20 in Tech Support
 - APAC (Singapore) - 1 (so far)



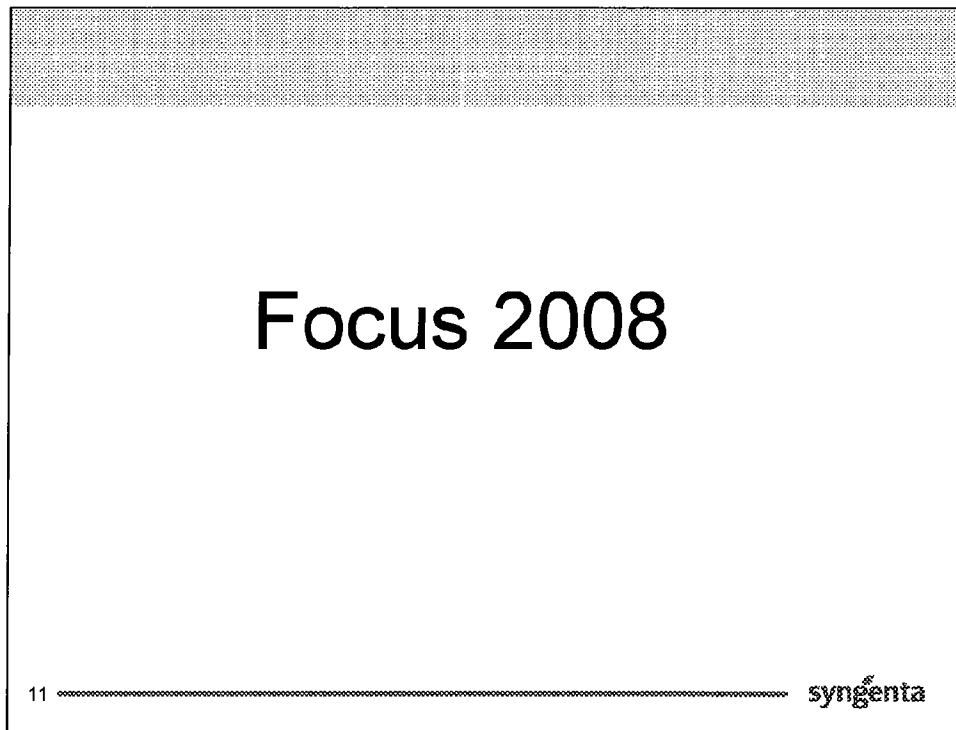
Product Safety Challenges

- How can we create space to develop 5 New AIs in 5 Years for 150 MM?
- How can we influence Regulatory Paradigms to be based on best science?
- How can we enhance our Credibility with all Stakeholders?



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Strategy & Direction

- Contribute to scoping the global product safety package for 5 new Als & 1-MCP and deliver the regional part of the package in line with project and budget milestones.
 - 1-MCP target submission date 2009
 - 449 target submission date 2010
 - 524 target submission date 2010
 - 520 target submission date 2010/11
 - Galaxy target submission date 2011
 - DASH target submission date 2012
 - AMBI – early stage Synthesis
 - HAMBRA early stage Synthesis
- Continue to develop and refine Product Safety Support model to LATAM and Traits and identify opportunities for efficiency gains and synergies, agree resources and actions.

Science & Technology

- Ensure that the regional internal & CRO science and technology base remains at the level required to deliver current projects at maximum value.
- Gain access to internal and/or external capability to prepare for the high and medium priority science gaps identified:
 - Endocrine Disruption
 - Endangered Species
 - Biomonitoring
 - Allergenicity
 - Immunotoxicology
 - ToxCast
 - Science sourcing in LATAM/Mexico.

Portfolio & Projects / Operational Excellence

- Deliver the portfolio of studies, risk assessments and expertise required to support CP, Traits, PP & LATAM
- Deliver key PLCM and Support Projects in line with project milestones and cost targets.
 - Atrazine Programs & SAPs (2)
 - Paraquat: Inteon, Legal support, Human Safety Research programs, LATAM Defense/support
 - Mesotrione: HTC Soybeans, event selection, Metabolism study, residue program, Turf label (Q1/09), DNT decision support (framework 4/08, Progress position on DNT Science requirements 12/08)
 - Abamectin: SC Formulation MOR data
 - Avicta: Brazil re-registration, DNT follow up
 - Triazoles: New crop uses, USTTF, Conditions of Registration studies
 - Growth Regulators: TXP Method, New uses MOR program
 - Emamectin: Toxicology (RegTox), Tree nuts MOR results (EEE)
 - DCI for Fomesafen, Fluazifop, , Phenoxycarb
 - CA Pyrethroid review
 - Chloroantrinpole mixtures submission 3/08

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Capability & Culture

- Support Science policies development and related capability development and data/assessment generation for the following reg./sci. areas
 - Inerts: data gen.
 - Endangered Species: Litigation, Science Assessments for multiple products
 - Endocrine Disruptors: validation, test protocol and data support multiple products
 - Spray Drift
- Improve coordination of global and regional regulatory/science networks (TC/Function/Regulatory) through revised processes:
 - Establish TMT approach for ES projects
 - Establish Biotech-PS TMT
- Optimize feedback loop on budget / information between TC/function leads/ teams
- Increase PS input into LATAM project scoping
- Ensure that Product Safety opportunities identified through skill gap analysis are filled
- Develop and access talent through continued training, succession planning and strategic recruitment.

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**Alignment - Cross-training/Development
Capability & Culture Focus**

Effective science communication (S. Wall)

- Training session
 - Develop concept
 - Establish pilot

New hires (and development of all)

- PS F3 project implementation
 - Fast start / mentoring
 - Expanded experience / breadth

Workshops

- Spatial Technologies (Global workshop)
- Environmental Assessments (Global workshop)
- Human Safety Assessments (LATAM)
 - Dietary/Op. Exp. – LATAM
 - Toxicology

Presentations at Professional Meetings and /or publications

- Process needed to develop a plan – forecast needs and possible impact
- Proactive rather than reactive – part of the goal setting (team leads)

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